

AMENDMENTS TO THE CLAIMS

Claims 1-7 (Canceled)

8. (New) A method for treating a disease condition or deficiency through gene delivery to target cells of a subject comprising the step of administering a conjugating agent-nucleic acid complex where the conjugating agent comprises A-R₁-Q-Z, where A-R₁ is a cholesterol derivative; a C₈-C₂₄ alkyl; C₈-C₂₄ heteroatom substituted alkyl wherein the heteroatom is O, N, or S; or a bile acid; Q is a sulfur, a secondary amine or oxygen having a nonessential N-terminal amino acid region; and Z is a polyionic peptide.

9. (New) The method of claim 8, wherein said administration is oral.

10. (New) The method of claim 8, wherein nucleic acid of said complex is expressed as a protein in said target cells.

11. (New) The method of claim 10 wherein said protein is secreted from said target cells.

12. (New) The method of claim 10 wherein said protein is of a class selected from the group consisting of: proteases, pituitary hormones, protease inhibitors, growth factors, cytokines, somatomedians, chemokines, immunoglobulins, gonadotrophins, interleukins, chemotactins, interferons, and lipid-binding proteins.

13. (New) The method of claim 8 wherein said nucleic acid of said complex is selected from the group consisting of: DNA, RNA, mRNA, miRNA, ribozyme, RNase, and antisense sequences.

14. (New) The method of claim 8 wherein said complex is administered as part of a pharmaceutical composition.

15. (New) The method of claim 14 wherein said pharmaceutical composition comprises an active therapeutic compound.

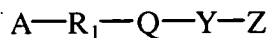
16. (New) The method of claim 15 wherein said therapeutic agent is selected from the group consisting of: an antibiotic, a gamma or beta radiation emitting species, an anti-inflammatory, an antitumoral, an antiviral, an antibody, a hormone, an enzyme, antigenic peptide and antigenic protein.

17. (New) The method of claim 8 wherein A-R₁ is a cholesterol derivative.

18. (New) The method of claim 17 wherein said A is a hydrophilic moiety.

19. (New) The method of claim 8, wherein said target cells are gastrointestinal cells.

20. (New) A gene delivery composition comprising a conjugating agent-nucleic acid complex having the formula:



where $A-R_1$ is a cholesterol derivative; a C_8-C_{24} alkyl; C_8-C_{24} heteroatom substituted alkyl wherein the heteroatom is O, N or S; where A is a hydrophilic moiety A that illustratively includes C_0-C_4 alkyl-hydroxy, -substituted amino, -quaternary amino, -sulfonate, -phosphonate, and -carboxylate and a target ligand; where Q is sulfur, nitrogen, or oxygen; where Y is a linker peptide having a negative, neutral, or positive charge; and where Z is a polyionic peptide.

21. (New) The composition of claim 20 wherein said cholesterol derivative is selected from the group consisting of: cholestanol, coprostanol, cholic acid, glycocholic acid, chenodeoxycholic acid, desoxycholic acid, glycochenodeoxycholic acid, taurocholic acid, and taurochenodeoxycholic acid.

22. (New) The composition of claim 20 wherein said cholesterol derivative is a cholic acid or a deoxycholic acid.

23. (New) The composition of claim 20 wherein said A derivative is hydroxyl.

24. (New) The composition of claim 20 wherein said Q derivative is oxygen.

25. (New) The composition of claim 20 wherein Y and Z together yield a net neutral charge.

26. (New) The composition of claim 20 wherein Z is polycationic.

27. (New) The composition of claim 26 wherein Z contains at least six residues.
28. (New) Use of a bile acid salt as a conjugating agent to administer nucleic acid to a subject.
29. (New) The use of claim 28 wherein administration is oral.
30. (New) A commercial package comprising a composition of Formula I according to claim 8 as an active ingredient together with instructions for the use thereof as a gene delivery agent to a subject.